

REMARKS

Status of Claims

Claims 1-17 were previously canceled and 18-37 were previously pending, and subject to an election of species requirement.

The subject matter of claims 21, 25, 26 and 33 (*lift means (18) is a lift device expandable by means of the propulsion gas selected from a fabric bag, a folded bellows or telescopic pipe expansion unit, which lift device is also a lift limiter*) is hereby incorporated into claim 18 as well as claims 36 and 37. Claims 21, 25, 26 and 33 thus canceled.

In view of these amendments, claims 27, 28 are canceled as not being within the scope of claim 18.

Claims 18-20, 22-24 and 29-32 and 34-37 are under examination.

While the Examiner had indicated that claims 20, 23, 24, 27, 28-31, 33 and 34 are currently withdrawn as being drawn to a non-elected species, "there being no allowable or generic linking claim", Applicants submit that the previously elected species, as well as all species in claims 18, 36 and 37, are patentable.

Thus, Applicants request consideration of all species (including fabric bag which was not in one of the previously enumerated species) and consideration of all presently pending claims 18-20, 22-24 and 29-32 and 34-37.

Election of Species Requirement

Briefly reviewing, amended claims 18, 36 and 37 are directed to a vehicle mounted device, and method of operation thereof, which, when triggered by an impact with a pedestrian, will lift the hood, providing a space between the hood and the engine. If the pedestrian then impacts the lifted hood, the lifted hood will have room to deform, cushioning the impact and reducing injury.

The device comprises an explosive unit (16) which, when fired, releases energy to release a retaining member (10) (see Fig. 5-6) and also actuate lift means (18), namely, a lift device expandable by means of the propulsion gas of the explosive unit (16) (e.g., a fabric bag, a folded

bellows or telescopic pipe expansion unit), for lifting the front hood (20) into a collision position. The device also includes a lift limiter, which, in the case of the currently amended claims, is the same element as, or at least incorporated in, the lift device.

The Examiner had previously posed an election of species requirement, requiring Applicants to elect one of the following species:

- I. Species I- Figure 1 and 2 (body mounted *piston* lift device with folded lift limiter)
- II. Species II- Figure 3 (body mounted *telescopic* expanding lift device for *lift and lift limiter*)
- III. Species III- Figure 4 (body mounted lift device with initially “pop the cork” type piston lift device followed by *bellows* for *combination lift and lift-limiter*)
- IV. Species IV- Figure 5, 6 (body mounted *piston* lift device, showing detail of first release, not showing lift limiter)
- V. Species V- Figure 7a-7c (multi-articulated hinge-mounted *piston* lift device)
- VI. Species VI- claim 28 and the last paragraph of page 7 (swan hinge-mounted *piston* lift device with hinge functioning as lift limiter).

Applicants had elected Group III, without traverse, with the understanding that upon allowability of Species III, additional species will be examined.

It is respectfully submitted that claims 18, 36 and 37 define a single invention free of prior art in that a single pyrotechnic explosive unit (16) is used to release retaining member (10) and also inflate the lift device expandable by means of the propulsion gas of the explosive unit (16) – which may be a fabric bag, a folded bellows or telescopic pipe expansion unit (44; 58) – thereby actuating lift means (18) for lifting the front hood (20) into a collision position, wherein means for limiting the travel of the hood is integrated in the lift device.

The following claims read on the allowable species of claims 18, 36 and 37: 18-20, 22-24 and 29-32 and 34-37.

Applicants respectfully request that all remaining species be examined at this time.

Claim Rejections - 35 USC § 102

Claims 18, 22, 25, 26, 32, 36, and 37 are rejected under 35 U.S.C. §102(b) as being anticipated by Fredriksson et al. (GB 2 373 218 A = US 7,246,677).

Applicants first point out that claims 21 and 33, not rejected under this paragraph, are incorporated into claims 18, 36 and 37, thereby overcoming the anticipation rejection.

The present invention is based upon the idea of not only combining releasing and actuation into a cohesive sequence, but also incorporating the lift limiter into the lift device. None of the cited prior art shows a device for lifting the front hood of the motor vehicle with all of the features of the amended claim 18, 36 and 37.

More specifically, turning to Fredriksson, this reference is cited for teaching a device for lifting a front hood of a motor vehicle in case of collision with a pedestrian including a retaining member (unnumbered catch described on page 6, lines 14-18.) Also taught is a pyrotechnic explosive unit (14) for releasing the retaining member (as described, the inflation of 8 by the gas produced pushes 19 up which releases the catch.) The energy released by the explosive unit also actuates the lift means (8.) Regarding claim 22, the sleeve 8 can fairly be called a transmission element, since the impulse released by the gas of the explosive unit drives this transmission to fill and lift the hood. Regarding claims 23 and 24, the lift means is a lift device that is a folded bellows (8.) Regarding claim 32, the explosive unit produces propulsive gas (see page 6, last paragraph.) Regarding claims 36 and 37, these limitations are previously described above, and the method is inherent and disclosed throughout.

The Examiner nowhere specifically points to support in Fredriksson for rejection of claims 25 and 25, which are now also incorporated into claims 18, 36 and 37.

Thus, withdrawal of the rejection under this paragraph is respectfully requested.

Claims 18, 19, 22, 25, 26, 32, 35-37 are rejected under 35 U.S.C. §102(b) as being anticipated by Knight -Newbury et al. (WO 02/072393).

Applicants note that the subject matter of claim 33, presently incorporated into claims 18, 36 and 37, is not rejected under this paragraph. Thus, all claims are free of this rejection.

Knight- Newbury et al. are cited for teaching a device for lifting a front hood of a motor vehicle in case of collision with a pedestrian including a retaining member (catch 34, and bracket 9, see Figure 1) Also taught is a pyrotechnic explosive unit (19) for releasing the retaining member (as described, the inflation of the sleeve 21 by the charge actuates the release arm 33 to release the catch, see page 8, second paragraph).

In response, Applicants point out that claims 18, 36 and 37 as amended require the explosive unit (16) to be in a hollow space in the retaining member (10). The claimed integration of the pyrotechnic explosive unit into the retaining member achieves a very compact design, which is easy and quick for assembling. It is new and inventive.

Frederiksson et al., Knight- Newburn et al. , and Sasaki do not disclose the integration of the explosive unit into the retaining member.

In Frederikson et al. the explosive unit is here integrated into the lift device. The retaining member is attached separately.

Knight- Newburn et al. teach retaining member catch 34, bracket 9 is attached beside the means for lifting the hood and limiting the travel of lifting. The explosive unit is integrated into the sleeve 20.

Sasaki is discussed below.

Withdrawal of the rejection under this paragraph is respectfully requested.

Claims 18, 19, 21, 22, 32, 35-37 are rejected under 35 U.S.C. 102(b) as being anticipated by Sasaki (DE 100 33 126 Al .)

Sasaki is cited for teaching a device for lifting a front hood of a motor vehicle in case of collision with a pedestrian including a retaining member (hollow bracket 25 and element 33 see Figure 2) Also taught is a pyrotechnic explosive unit (30) for releasing the retaining member (as seen in Figure 5B, the element 33 breaks along weakness line, when piston is moved up) The energy released by the explosive unit also actuates the lift means (28) Regarding claim 19, the

retaining member 25 is a connecting element for rigid connection of the hood with the vehicle body.

Applicants note that the subject matter of claim 33, presently incorporated into claims 18, 36 and 37, is not rejected under this paragraph. Thus, all claims are free of this rejection.

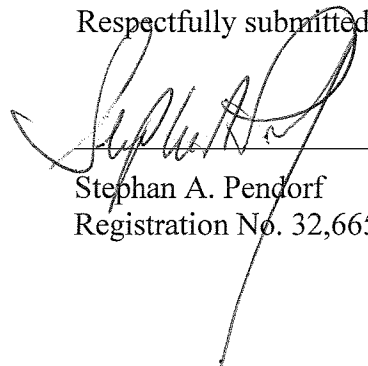
Further, regarding Sasaki, in the opinion of the Examiner the retaining member is realized by the hollow bracket 25 and element 33. In case of a collision, the piston, located in the hollow bracket is activated and by moving up, the plate 36 which is fixed to the hollow bracket breaks. After that, the piston member is allowed to lift up the hood. The hollow bracket, and element 33 are not a connecting element for rigid connection of the hood with the vehicle body in the meaning of the invention. There are no fixing elements between element 33 and hood.

For the same reasons as discussed above, the claims as amended are free of this prior art.

Accordingly, it is respectfully submitted that all claims are in condition for allowance.

The Commissioner is hereby authorized to charge any fees which may be required at any time during the prosecution of this application without specific authorization, or credit any overpayment, to Deposit Account Number 16-0877.

Respectfully submitted,



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